Amendment Dated April 30, 2007
Serial No. 10/769,209

REMARKS

Reconsideration of the rejections set forth in the Office Action is respectfully requested. By this amendment, claims 1-13 have been canceled without prejudice or disclaimer and new claims 14-31 have been added. Currently, claims 14-31 are pending in this application.

Rejection under 35 USC 112

Claims 1-13 were rejected under 35 USC 112 as indefinite. Specifically, the Examiner indicated that the term "type" was indefinite and that the term "service set" was indefinite. Additionally, the Examiner indicated that it was unclear how the steps of the claims "define an optical broadband service." Although the original claims have been replaced with a new set of claims, applicants will provide a response to this rejection so that a similar rejection is not made in connection with the new claims.

This application describes a way in which a network service provider may define services, which may then be sold to customers. As described at Page 3 of the specification, (paragraph 15) a service definition software platform enables a network service provider to specify multiple aspects of an optical broadband service. By enabling the services to be broken down into building blocks that can then be used to define service sets and groups of services, service providers are more effectively able to market optical broadband services as network products. Thus, assume for example that there are multiple network elements such as routers and switches all interconnected via optical fibers. Each of the network elements may be capable of implementing multiple different protocols. The service definition software platform enables a network operator to specify a particular service for a particular customer, so that the customer is then able to use the deployed network resources assigned to the optical service definition.

Claim 14 recites that the method includes selecting a service component, and defining a service channel to be carried over the service components. The service channel is defined by specifying attributes of the service channel. One of the attributes that may be specified is the service type attribute, which allows the operator to specify the type of service component that will carry the service channel. For example, the service channel may be a local, inter-office facility, or long haul service channel. The service type attribute allows this to be specified.

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Applicants respectfully submit that the re-written claims are not indefinite under 35 USC
112, second paragraph, when read in view of the specification. Accordingly, applicants
respectfully request that these new claims not be rejected under this statutory section.

Rejection under 35 USC 101

Claims 1-13 were rejected under 35 USC 101. Applicants have drafted new claims that
are believed to be patentable under 35 USC 101. Thus, this rejection is therefore believed moot.
New claim 14, for example, recites a "computer readable medium containing instructions for
controlling at least one processor to perform a method of defining an optical broadband service
in an optical communication network..." The claim then recites a method that produces a useful
real world result. Specifically, the method enables an optical broadband service to be defined,
which is a circuit based service that allows bandwidth on the optical communication network to
be reserved and dedicated to a customer. Thus claim 14 as drafted recites statutory subject
matter under 35 USC 101. Independent claim 31 is also statutory for substantially the same
reasons. Additionally, claim 31 further recites "messaging the defined optical broadband service
to at least one network element forming part of the optical communication network and
associated with the at least one service component to reserve the bandwidth on the optical
communication network associated with the defined service channel to be dedicated to the
customer." Accordingly, claim 31 is also statutory under 35 USC 101.

Rejection under 35 USC 103

Claims 1-13 were rejected under 35 USC 103 as unpatentable over Dougall, et al. (U.S.
Patent Application Publication No. 2003/0093485). This rejection is respectfully traversed in
view of the amendments to the claims and the following arguments.

Dougall teaches a system that may be used to define how information is transmitted
across a network. In Dougall, the network is assumed to exist between a head end site 201 and
remote receiver sites 203. (Paragraph 63). Dougall's objective is to provide a system that is able
to interleave best effort data packets into one or more streams of packets that otherwise are
required to meet particular timing and scheduling constraints. (Paragraphs 70-71). Paragraph 72
describes how a best efforts packet is formatted for transmission in a stream of data. For
example, the best effort data streamer appends a transport layer header and network layer header

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to the best effort packet. Additional headers are then added and the encapsulator/data injector 214 adds a particular PID into the transport header to enable the best effort packet to be differentiated from the stream of data. The encapsulator/data injector then transmits the transport packets bearing the best-effort data within the outputted transport stream. (Paragraph 74).

Dougall provides a resource manager that is used to define "communication channels". Dougall uses the term "channel" to describe a virtual path for communicating best-effort data and specifies a manner by which the best-effort data is communicated. (Paragraph 91). One way that Dougall enables different channels to be defined is via the use of different IP addresses and/or transport layer ports. (Id.). Dougall describes three types of channels (paragraph 92) and then describes in paragraphs 93-95 how the channels may be defined. Dougall does not care how the packets are actually handled by the underlying network, but rather assumes that the IP network will forward the packets in a normal manner. Rather, Dougall is interested in allowing an operator to specify the start and end-points of the channel, and enabling the operator to specify how the packets should be formatted for transport such as by allowing the operator to specify the IP address/port/protocol of the packets for a particular channel.

In paragraph 93, Dougall describes several screen shots that are shown in Figs. 5-8. Fig. 5 shows the various channels that have been defined. Paragraph 93 of Dougall also describes Fig. 6, which is a screen shot of a dialog via which the user can enter general information about a particular service channel, such as the name of the channel, a description of the channel, and the overall bandwidth of the channel. The bandwidth will be used by the injectors to determine how many packets may be injected into a channel at any point in time. For example, in Paragraph 96 Dougall teaches that the general tab may be used to name the channel, describe the channel, define the maximum bandwidth of the channel, and specify who is permitted to transmit data on the channel.

The channels, in Dougall, do not specify particular services offered by the network elements, but rather specify the manner in which the source of the data can inject data into the network. For example, in paragraph 94 Dougall describes a view in which the operator can specify the channel endpoint (402-1), which content packetizer should be used to packetize the content for transmission over the channel (402-2), the network protocol that should be used to format the packets for transmission (402-3), the target IP address (402-4), the target IP port (402-5) and the target multicast time to live value (402-6). Dougall then explains in paragraph 94 that

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these fields are all related to the start and end-points on the network, or are related to how the packets should be formatted for transmission over the network.

In paragraph 95, Dougall teaches how the operator may choose which programs will be carried on each of the channels. For example, the channel may carry one or more programs, which may be subscribed to by clients. (Paragraph 97).

Dougall therefore has nothing to do with defining services on an optical network. Rather, Dougall teaches a system that will allow a content provider to divide up the bandwidth that it has purchased from a network service provider, so that different "channels" of information may be transmitted to different clients. The channels of information are akin to radio channels or TV channels that carry streaming audio, video, or audio and video information. (See Dougall at paragraphs 20-21). They are not related to optical broadband services, which are specified in claim 14 to be circuit based services that allow bandwidth on the optical communication network to be reserved and dedicated to a customer.

Claim 14 recites defining an optical broadband service in an optical communication network, the optical broadband service being a circuit-based service that allows bandwidth on the optical communication network to be reserved and dedicated to a customer. Dougall does not teach or suggest a system that allows an optical broadband service to be defined. Additionally, Dougall does not teach or suggest the steps of the method, which as recited in claim 14 include the step of selecting at least one service component to be included in an optical broadband service, the service component being capable of carrying one or more service channels; and defining a service channel to be carried by the service component, the service channel definition including at least a service type attribute for the service channel, a service channel interface attribute for the service channel, a service channel bandwidth attribute for the service channel, and a service channel transport system attribute for the service channel. Accordingly, applicants respectfully submit that new claim 14 is patenable over Dougall. Independent claim 31 is patenable for the same reasons, as are the dependent claims.
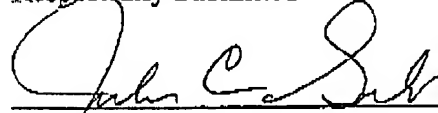
Conclusion

In view of foregoing remarks, it is respectfully submitted that the application is now in condition for allowance and an action to this effect is respectfully requested. If there are any questions or concerns regarding the amendments or these remarks, the Examiner is requested to

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telephone the undersigned at the telephone number listed below.

If any fees are due in connection with this filing, the Commissioner is hereby authorized to charge payment of the fees associated with this communication or credit any overpayment to Deposit Account No. 502246 (Ref: NN-15848).

Respectfully Submitted

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